Vivicam 3635 User Manual

English 021009

Warranty Policy

This camera is under warranty for one full year from the date of purchase by the original purchaser. In case of defects in materials or workmanship, we will replace or repair the camera free of charge. This warranty applies to the camera only. This warranty does not include batteries, or other accessories that have not been manufactured by our company. This warranty will not be honored if the camera has been mishandled or tampered with, or altered by anyone other than the manufacturer. Other than for the warranty herein, we are not responsible for loss, damage, or inconvenience of any kind.

A defective camera being returned under warranty must be accompanied by a brief description of the difficulties encountered and also by a proof of purchase with the date of purchase clearly indicated. All related transportation costs and insurance are at the owner's expense. Any alteration of this warranty cannot be made without the written approval from our company.

FCC Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in commercial installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, detectable by turning the equipment in question off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna; Increase the distance between the equipment and the receiver; Connect the equipment to an outlet on a different circuit than that which the receiver is connected to; Or consult the dealer or an experienced radio/TV technician for help.

NOTE

A shielded-type DC power cable incorporated with a ferrite core is required in order to meet the FCC emission limits and also to prevent interference to the nearby radio and television reception. Use only shielded I/O cable incorporated with a ferrite core to connect this equipment to host computer and TV set. Shielded A.C. power cable and shielded I/O cables are required in order to meet the FCC emission limits. It is essential that only the supplied power cord and I/O cable(s) be used.

Warning

Do not use this camera if it is emitting smoke, becomes unusually hot to be touched, emitting any unusual odor or noise, or if it is in any other abnormal states. Operating the camera in any of these situations may cause a fire or an electrical shock.

(batteries or AC power adapter). (If you are using the AC power adapter, unplug the adapter from the AC power outlet after you have disconnected the camera.) After checking that smoke is no longer being emitted, contact your dealer or your local authorized service facility
and request repairs. never attempt to repair this camera yourself as this is dangerous.

Do not use the camera if any water has entered the camera.
Turn the camera off, and then disconnect the power source (batteries or AC power adapter).
(if you are using the AC power adapter, unplug the adapter from the AC power outlet after you have disconnected the
camera.) Then contact your dealer or your local authorized service facility. Do not continue to use the camera as this
may cause a fire or an electrical shock.

Do not use the camera if any foreign objects have entered the camera. Turn the camera off,
and then disconnect the power source (batteries or AC power adapter).
(if you are using the AC power adapter, unplug the adapter from the AC power outlet after you have disconnected the
camera.) Then contact your dealer or your local authorized service facility. Do not continue to use the camera as this
may cause a fire or an electrical shock.

If the camera has been dropped or if the camera case has been damaged,
turn the camera off, and then disconnect the power source (batteries or AC power adapter).
(if you are using the AC power adapter, unplug the adapter from the AC power outlet after you have disconnected the
camera.) Then contact your dealer or your local authorized service facility.
Do not continue to use the camera as this may cause a fire or an electrical shock.

Warning

Do not place the camera in any unstable locations such as on a wobbly table or sloping surface where the camera may fall or tip over and cause injury.

Do not expose the camera to moisture and make sure that there is no water getting into the camera.
Take particular care when using the camera under extreme weather conditions such as rain or snow,or when operating the camera at the beach on near water.
Water in the camera may cause a fire or an electrical shock.

Do not insert or drop metallic or inflammable foreign objects into the camera through access points such as the Compact Flash card slot.
This may cause a fire or an electrical shock.

Do not attempt to modify this camera.
This may cause a fire or an electrical shock.

Do not remove the camera casing. This may cause an electrical shock.
Internal inspection, maintenance and repairs should only be carried out by your dealer or local authorized service facility.

Avoid using this camera in the bathrooms.
Exposure to excessive moisture may cause a fire or an electrical shock.

Do not touch the power plug during a thunderstorm if you are using the AC power adapter.This may cause an electrical shock.

Never operate this camera in any way while driving a vehicle.
This may cause a traffic accident.

Caution

⚠ Do not place this camera in damp or dusty locations.
This may cause a fire or an electrical shock.

⚠ Do not place this camera in a location affected by oil fumes or steam,such as near a cooking stove or humidifier. This may cause a fire or an electrical shock.

⚠ Do not leave this camera in a location subject to extremely high temperatures, such as in a sealed vehicle or in direct sunlight.
Exposure to high temperatures may adversely affect the camera case and internal components and may cause a fire.

⚠ Do not cover or wrap the camera or the AC power adapter with a cloth or quilt.
This may cause heat to build up and distort the case and cause a fire.
Always use the camera and its accessories in well-ventilated locations.

⚠ Handle the camera carefully and do not bump the camera into any hard object.
Handling the camea roughly may cause a malfunction..

⚠ Do not move the camera while it is switched on.
(if you are using the AC power adapter, unplug the adapter from the AC power outlet after you have switched off the camera.)
Ensure that any connector cords or cables to other devices are disconnected before moving the camera,Failure to do so may damage the cords or cables and cause a fire or an electrical shock.

⚠ When handing the camera ,always unplug it from the power source (batteries or AC power adapter) for safety.
(if you are using the AC power adapter, unplug the adapter from the AC power outlet after you have disconnected the camera.)
Failure to do may result in an electrical shock.

Caution

⚠ **When leaving the camera unused for long periods, such as during a vacation, always unplug the camera from the power source (batteries or AC power adapter) for safety.(if you are using the AC power adapter, unplug the dapter from the AC power outlet after you have disconnected the camera.)**
Failure to do so could result in a fire.

⚠ **Do not use batteries other than those specified for use with your camera. The use of unsuitable batteries may result in the batteries splitting or leaking and causing a fire, injury,or soiling of the battery compartment.**

⚠ **When fitting batteries into the camera, check the polarity markings on the battery (- and +)to ensure that you insert the battery correctly.**
Incorrect battery polarity may result in the batteries splitting or leaking and causing a fire, injury,or soiling of the battery compartment.

⚠ **Remove the batteries if the camera will not be used for an extended period of time.The batteries may leak and cause a fire, injury or soiling of the battery compartment.**
If the batteries leak, clean and wipe the battery compartment carefully and install new batteries.
Wash your hands carefully if you touch the battery fluid.

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Chapter 1 Preparation

Thanks for the purchase of the digital camera. With the camera, you will live a whole new camera experience and make photo shooting more interesting and fun. Here below we will guide you through the whole picture taking process, please read this User's Manual carefully and keep them in a safe place for future reference.

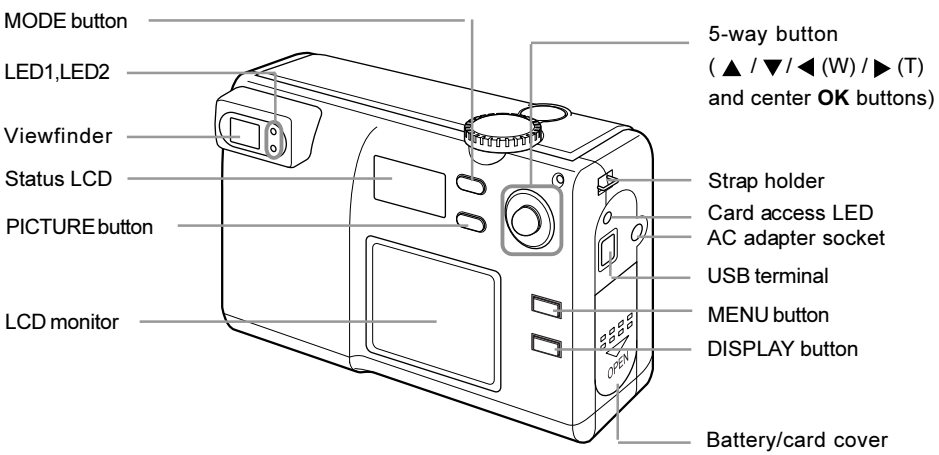
Checking Accessories

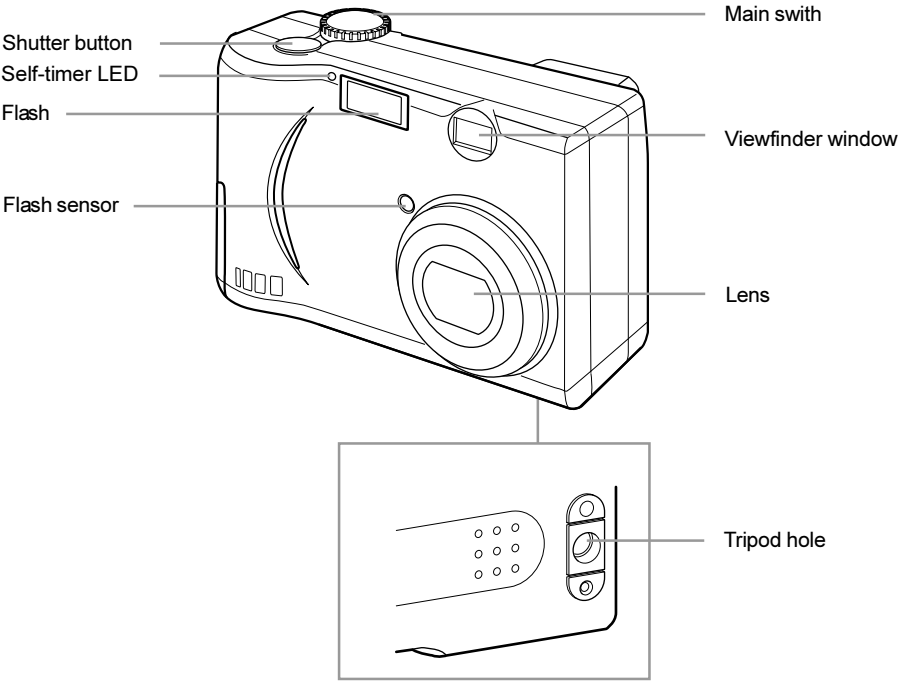
- Software CD-ROM
- USB Cable
- AC Power Adapter (optional)
- Battery (optional)
- SD Memory Card (optional)
- Owner's Manual, Quick Start Guide
- Pouch and Strap

System Requirements

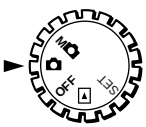
- Windows 98/2000/Me, Pentium 166 MHz or higher for PC Users
- Mac OS 8.6/9.0/9.1/X, Power PC CPU for Macintosh Users
- Color monitor (800x600 24-bit or higher recommended)
- Available USB port, CD-ROM drive
- 80 MB available hard disk space
- At least 32 MB RAM

Names of parts





Main switch



M **Manual mode (M-REC)**
Images can be recorded using manual settings.

Auto mode (REC)
Images can be recorded using default settings.

OFF **Power off**
The camera is turned off.

Playback mode (PLAY)
Images recorded can be played back on the LCD monitor.

SET **Setup mode (SET UP)**
Various settings can be changed.

5-way button

Used for zoom operation and menu operation. Pressing the center acts as the **OK** button.

MENU/DISPLAY button

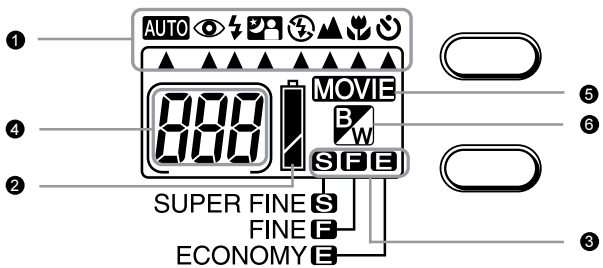
MENU button

Displays menus of various modes.

DISPLAY button

Images can be displayed and recorded using the LCD monitor by pressing the DISPLAY button during Manual mode (M) and Auto mode ( ) .

Status LCD



❶ Camera mode

By selecting a preset recording mode using the MODE button, the subject can be recorded in the optimal condition.

AUTO	Auto
AUTO	Red-eye Reduction
	Fill-in Flash
	Night View Portrait
	Flash Off
	Distant
	Macro
	Self-timer

For details on each mode, see Chapter 2 Basic Recording.

❷ **Battery life indicator**

When using batteries, the battery level is indicated using 3 levels (full: ; low: ; empty:).

❸ **Picture quality mode**

The picture quality of image data can be selected from 3 types by pressing the PICTURE button.

S SUPER FINE F FINE E ECONOMY

❹ **Remaining number of frames**

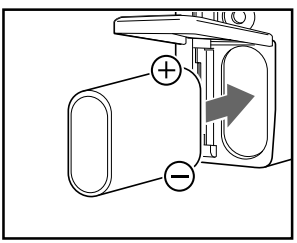
Remaining number of frames available for recording is displayed. When the camera is connected to a PC, “PC” is displayed.

❺ MOVIE This indicator is displayed when the camera is set to movie recording.

❻ B/W This indicator is displayed when the camera is set to black-and-white recording.

Preparing the Power Supply

Turn the main switch to the OFF position.



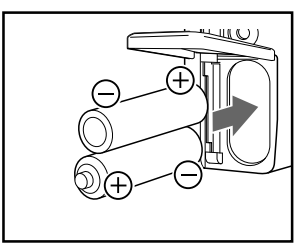
CR-V3 lithium battery

1. Open the battery/card cover by sliding in the direction indicatied the arrow.
2. Insert the battery in the correct direction as shown in the diagram.
3. Close the battery/card cover.

AA batteries

Insert AA batteries (2 units) with polarity as shown in the diagram inside the battery compartment.

- *AA alkaline batteries and AA nickel-hydrogen batteries can be used.*
- *Do not use a mix of different types, different manufactures, different classifications of batteries.*
- *When using rechargeable batteries, read the instruction manual of the batteries and charger before use.*
- *Rechargeable batteries cannot be charged in the camera.*



Battery life indicator

The number of pictures that can be taken varies according to the performance and usage conditions of the batteries. Power is consumed by the following operations even when not recording and these will reduce the number of images that can be recorded.

- *Repeated focus operations by pressing the shutter button halfway.*
- *Repeated zoom operations.*
- *Extensive use of the LCD monitor in the Playback mode.*
- *Communication with a PC.*

Using the AC adapter

Insert the AC adapter into a wall outlet . Next, connect the power cable of the AC adapter into the AC adapter jack on the camera.

- *Always use the supplied AC adapter .Otherwise fire and/or electrical shock may occur as a result.*
- *When carrying the camera overseas, check with a travel agency, etc., and prepare a conversion adapter suitable for the power plug of the destination country in advance.*

Auto shut-off function

When using the camera with batteries and no operation is made for a certain time, the camera power will automatically turn off to prevent battery depletion.
To recover from auto shut-off, press the MODE button, PICTURE button, ▲/ ▼/ ◀/ ▶ button, shutter button or DISPLAY button.
The time for auto shut-off is factory set to “3 min”, and the setting can be changed in the SETUP menu. (See page 33 .)

- *The auto shut-off function operates even when using the AC adapter.*

Inserting/Removing the SD Memory Card/Multi-Media Card

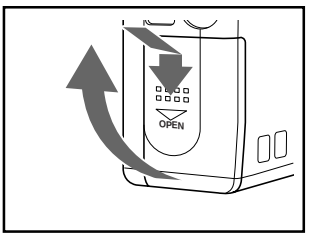
Always turn the main switch to the OFF position and make sure the card access LED is off before inserting/removing the SD Memory Card/Multi-Media Card.

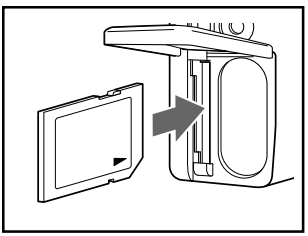
Inserting the card

1. Open the battery/card cover.
2. Face the label of the SD Memory Card/Multi-Media Card toward the front of the camera and the end of the connector toward the card slot.
3. Carefully insert the card into the camera with the mark on the label facing up until a click is heard. The card will be locked.

4. Close the battery/card cover.

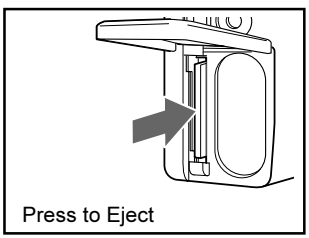
- *SD Memory Card cannot be inserted and locked if the front/back sides or the up/down direction are incorrect.*
- *If force is used when inserting SD Memory Card/Multi-Media Card, damage may occur to the connector section.*





Removing the card

1. Open the battery/card cover.
2. Press the edge of the inserted SD Memory Card/Multi-Media Card.
3. The card will unlock and eject.
4. Close the battery/card cover.



Caution

SD Memory Cards and Multi-Media Cards are manufactured using precision electronic components. Do not perform the following as malfunction or damage may occur as a result.

- *During image recording, the card access LED is lit. While the lamp is on, do not open the battery/card cover or remove the SD Memory Card/Multi-Media Card. Interrupting the writing process will not only cause the camera to malfunction but the card may become unusable.*
- *Do not touch the terminal with hands or metal objects. Damage to the components may occur as a result of static electricity. Before handling a SD Memory Card or Multi-Media Card, discharge any static build-up from your body by touching grounded metal, etc.*
- *Keep dust, water and foreign objects away from the terminal section.*
- *Do not store the card in places with high humidity, dusty places or where static electricity or electromagnetic fields are likely to occur.*
- *Do not bend, drop or apply excessive force.*
- *Avoid heat, liquid and direct sunlight when using and for storage.*
- *Do not dismantle or modify.*

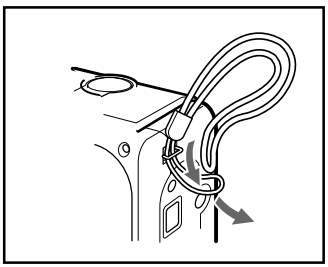
Important

- *When using Multi-Media Cards, the operation response time may be longer during shoot ing and playback when compared with the SD Memory Cards. However, this is due to the specification of the Multi-Media Card and is not a malfunction.*
- *The SD Memory Card includes a write-protect switch. Please note that pictures cannot be taken or deleted when the write-protect switch is on.*
- *When using SD Memory Cards/Multi-Media Cards on a PC, do not change the attributes (read-only, etc.) of the files , the file names or the directory name of image data saved on an SD Memory Card/Multi-Media Card or save files other than image data taken by this camera. Images that have been changed or added will not only play back on the camera but may cause the camera to malfunction as well.*
- *Always format SD Memory Cards/Multi-Media Cards using this camera. A card formatted in a PC may not operate properly.*

Attaching the Strap

❶ Pass the thin loop through the strap into the strap holder on the right side of the camera.

❷ Pass the strap through the thin loop and pull.



Adjusting the Menu Display Language and Time/Date

When using the camera for the first time, set the menu display language and time/date. The setting range is between January 1, 2001 and December 31, 2035.

- *The menu language, time and date are maintained by the backup condenser. The setting contents are therefore retained even when replacing the lithium battery/AA batteries.*
- *Backup time during battery replacement is about 15 minutes.*

1. Make sure that batteries, or AC adapter have been installed/connected.
2. Set the main switch to , , or **SET** . *The LCD monitor will turn on and the Language Setting screen will appear.*
3. Press the ▲/ ▼ button to select the desired language and press the **OK** button. *The Confirmation screen for the selected language will appear.*
4. Press the ◀ button to select “YES” and press the **OK** button. *The selected language will be confirmed and the Time/Date Setting screen will appear.*

5. Use the ◀ / ▶ button to adjust the number to the current Year, Month, Day & Time. Press the ▼ / ▲ buttons to move the next/previous data field.
6. When the last item is selected/changed, press **OK** button. *The Confirmation screen for the date setting will appear.*
7. Press the **OK** button again. The set values will be stored.

Chapter 2 Basic Recording

Recording

Normal recording is performed with the subject a distance of more than 0.8m. For distances between 0.25m to 0.8m from the subject, see " Macro Recording mode (page20)".

1. Check to make sure that an SD Memory Card/Multi-Media Card is properly inserted.
2. Set the main switch to 📷 . *The lens will extend.*

■ *If the main switch is set to 📷 while the lens is being held, "Err" may appear in the status LCD. If this occurs, turn the main switch to OFF and turn it back to 📷 .*

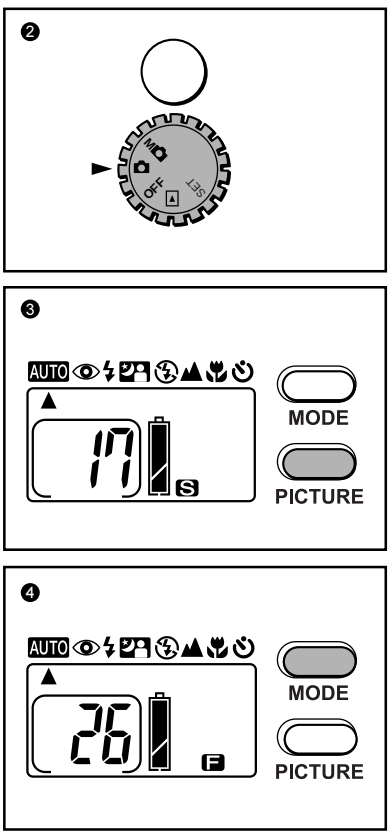
3. Press the PICTURE button to set the picture quality.

■ *For more information, see "Setting the Picture Quality" (page17).*

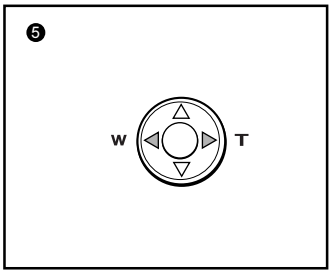
4. Press the MODE button to set the recording mode.

■ *For more information, see "Selecting the Recording Mode" (page18) to " Self-timer Mode" (page 21)*

5. Look through the viewfinder to determine the image composition, and then press the ◀ (W) and ▶ (T) buttons to set the subject size.



■ *When pressing the ◀ (W) button, the subject will become smaller (wide). When pressing the ▶ (T) button, the subject will become larger (telescopic). The zoom range is equivalent to 35 – 105mm in a 35mm camera.*



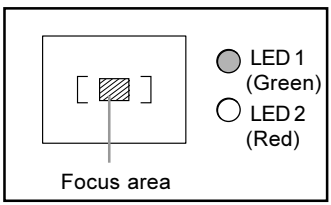
6. Lightly press the shutter button (halfway). *The LED1 will light green and the focus and exposure will be locked. If the subject to focus is not in the center of the viewfinder, perform "Focus Lock Recording" (page17).*

7. Gently press the shutter button completely. *Recording is completed when a buzzer sound* is heard.

■ *The operation of writing the recorded image to the SD Memory Card/Multi-Media Card will start and at the same time, the card access LED on the side of the camera will light (orange). When the card access LED turns off, the writing process is completed.*

Viewfinder and LED

For normal recording, aim at the subject using the entire viewfinder area. To focus, position the subject within the diagonally-lined center area of [ ] located at the center of the viewfinder.
For macro recording (0.25m to 0.8m), or if the zoom position is set to TELE and the distance between the camera and subject is near, record with the LCD monitor set to ON since the viewfinder and the recording range will vary. For macro recording, see (page20).



LED Messages

Type	Color	Status	Definition	Warning sound
LED 2	Red	Blinking	System error (error code displayed on status LCD)	Yes
LED 2	Red	Blinking	Image blur warning, Low light warning	No
LED 2	Red	On	Flash charging	No
LED 1	Green	Blinking	Auto-focus (AF) unavailable*	No
LED 1	Green	On	Camera ready for recording	No
LED 1,2	Green and Red	Blinking	Camera unstable warning, low-luminance warning or when subject cannot be focused (AF)	Yes
LED 1,2	Green and Red	Blinking	Insufficient card space, or card is not inserted, damaged, unformatted or write-protected	No
LED 1,2	Green and Red	On	Formatting card or during process	No

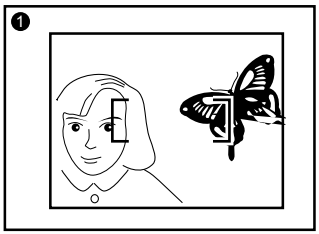
Focus Lock Recording

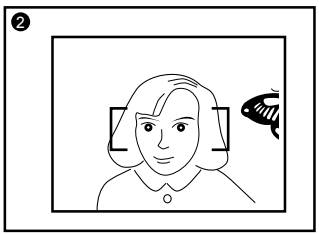
Use the following procedure if the subject to record is not in the center of the viewfinder.

❶ Position the subject so that it falls within the focus frame and lightly press the shutter button(halfway).
The LED 1 will light green and the focus position will be locked.

■ *Releasing the finger from the shutter button after locking the focus position will cancel the focus lock.*

❷ While continuing to hold the shutter button down lightly (halfway), re-position the subject for the desired composition and gently press the shutter button down completely to record.



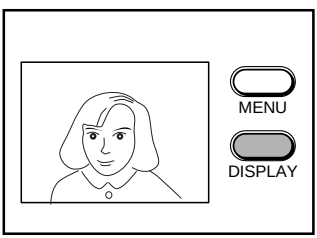


Recording using the LCD moniter

As well as using the optical viewfinder, the LCD monitor can be used as viewfinder for framing.

❶ Set the main switch to .
❷ Press the DISPLAY button to turn on the LCD monitor.
❸ Record by referring to the LCD monitor.

■ *Recording procedure is the same as when using the viewfinder.*



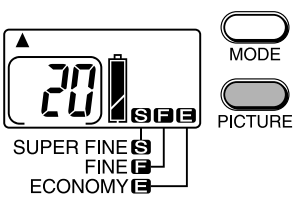
Setting the Picture Quality

By using the PICTURE button, the picture quality of the image data to be recorded can be selected from 3 types. The currently selected picture quality is displayed on the status LCD.

S SUPER FINE(Default setting)

F FINE

E ECONOMY



Number of recordable images

The values shown below are guides when recording using the same picture mode. When there are files other than images, or when recording is made while switching the picture quality mode/recording mode, the number of recordable images will vary. Furthermore, the number of recordable images may also vary depending on the recorded subject.

Picture quality mode	Estimated number of recordable images (8MB card)	File size (estimate)
SUPER FINE	About 17 images	About 240KB
FINE	About 26 images	About 150KB
ECONOMY	About 68 images	About 60KB

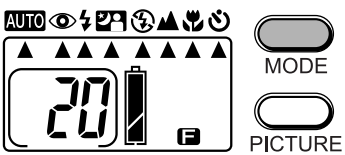
**Note: When using an SD Memory Card*

Picture quality modes and number of recorded pixel

Picture quality mode	Number of recorded pixels (H) × (V)	Picture quality
SUPER FINE (Default)	1600 × 1200 pixels	Among the 3 picture quality modes, this mode is superior in quality.Images consisting of about 2 million pixels can be recorded in this mode.
FINE	1280 × 960 pixels	Images consisting of about 1.3 million pixels can be recorded in this mode.
ECONOMY	640 × 480 pixels	Among the 3 modes,this mode allows the most number of images to be recorded.

Selecting the Recording Mode

By selecting a preset recording mode using the MODE button, the subject can be recorded in the optimal condition. 14 modes can be selected using the 8 icons.Pressing the MODE button will cycle through the recording modes.The selected recording mode is pointed by the arrow icon of ▲ on the status LCD.



- During auto power-off, the setting of each mode is saved. (Night View Portrait mode and Self-timer mode are canceled.)

- Jump function:When power is turned off, the mode returns to AUTO (default setting). However, the previously set mode can be selected by pressing the MODE button once. (Self-timer is not included as a previous set mode.)
- Single-action AUTO function:Pressing the MODE button for 2 seconds will return the mode to AUTO .

AUTO (Auto)Mode

Since this mode automatically performs all settings, it allows you to concentrate on the actual image to record. When recording in a dark place or against backlight, the camera will automatically determine whether the flash is necessary.

- Press the MODE button and select AUTO .

NOTE:

** The flash recording range is 0.8 to 3.0m when the camera is set to WIDE and 0.8 to 2.0m when set to TELE (the range varies depending on the zoom position and aperture).*

** While the flash is being charged, the viewfinder LED will light in red. While the LED is on, flash recording cannot be made.*

AUTO (Red-eye Reduction) Mode

Pre-flashing is performed before the actual flash to reduce the red-eye effect. Other than the pre-flash, the mode is the same as AUTO .

- Press the MODE button and select AUTO .

NOTE:

** The red-eye reduction may have little effect if the subject is not directly facing the pre-flash or actual flash, or when there is some distance between the camera and subject.*

(Fill-in Flash) Mode

Used to soften dark shadows on the face of the subject due to backlight, artificial lighting, etc. The flash will always be used regardless of the surrounding brightness.

- Press the MODE button and select .

(Night View Portrait) Mode

Used when recording subjects with night view as the background. The flash and red-eye reduction will always be used.

Under low light conditions, the shutter speed will become slow. Since this may result in the image becoming blurred, use of a tripod is recommended.

- Press the MODE button and select .

(Flash off) Mode

Used when recording in a place where flash photography is prohibited, or when utilizing the night view or indoor lighting for recording. The flash will always be off during recording. Under low light conditions, the shutter speed will become slow. Since this may result in the image becoming blurred, use of a tripod is recommended.

- Press the MODE button and select .

(Distant) Mode

Used when recording far away scenery.Infinity focus is selected at this mode to gain maximum sharpness. The flash will always be off during recording.

- Press the MODE button and select .

(Macro) Mode

Used when recording the subject at close distances.
Macro recording is used when the subject is within a distance range of between 0.25m ~ 0.8m (Tele 0.3m~0.8m)from the front of the lens.
For macro recording, the flash will always be off. Under low light conditions, the shutter speed will become slow. Since this may result in the image becoming blurred,the use of a tripod is recommended.

Caution: *For macro recording, the recording range and the field of view within the viewfinder will differ. Use the LCD as a viewfinder monitor for recording.*

1. Set the main switch on the top of the camera to . The lens will extend.
2. Press the PICTURE button to set the picture quality .
3. Press the MODE button and select .
4. Press the DISPLAY button to turn on the LCD monitor.
5. Apply the same procedure as the normal recording to take a close-up shot. (Refer to normal recording from step 5 to 7 at (page15)

■ *Focus adjustment may be difficult for the following condition:*

- *A location where the subject or background is extremely dark.*
- *Objects with no contrast ,flat objects with only horizontal lines, fast moving objects, poorly lit objects , objects with strong backlight or reflecting light, and objects that flicker such as fluorescent lighting.*

(Self-timer) Mode

This mode automatically releases the shutter after a delay so that the person making the recording can be included in the image. The self-timer LED on the front of the camera will flash in red and the shutter will be released after about 10 seconds. The delay time can be set to either “10 sec” (default setting) or “3 sec” in the SET-UP menu. (See page33)

- Press the MODE button and select .
- To cancel the self-timer, select a mode other than using the MODE button.

Chapter 3 Advanced Recording

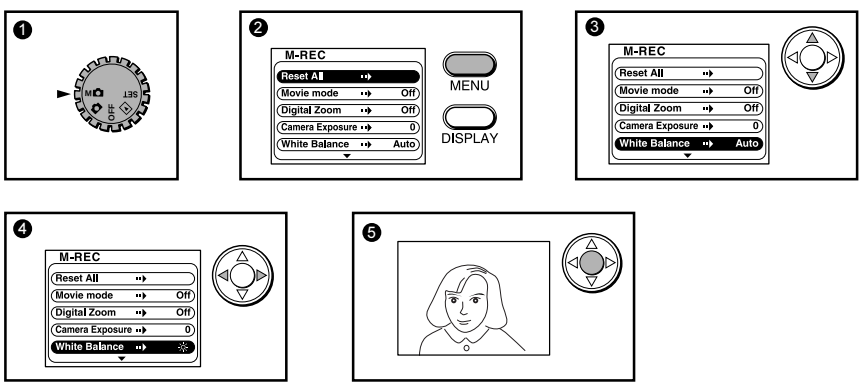
Using the M-REC menu

The main switch of the camera can be set to M, so that recording can be made with user-defined settings. M-REC menu contains Movie mode, Digital Zoom, Camera Exposure, White Balance, AE mode, Slow Shutter, Screen Contrast and Black & White sub-menus. To access the M-REC menu and how to change the settings, perform the following steps :

1. Set the main switch to M. The lens will extend.

■ *If the main switch is set to M with the lens is being held, “Err” may appear in the status LCD. If this occurs, turn the main switch to OFF and then turn it back to M .*

2. Press the MENU button to enter the M-REC menu mode.
3. Press the ▲/▼ button to select the desired sub-menu.
4. Press the ◀ / ▶ button to change the sub-menu setting.
5. Press the **OK** button to exit the M-REC menu mode.
6. Record using the set conditions. (See “Recording” page15.)



- *The menu settings that have been made will be saved even when the power is turned off.*
- *The settings set in the M-REC menu will not have any effect when the main switch is set to* .

Recording a Movie

Movies can be recorded with this camera. The available recording resolutions are: 320 X 240 pixels and 160 X 120 pixels. The maximum recording time for a movie is about 15 seconds and recording continues while the shutter button is held down.

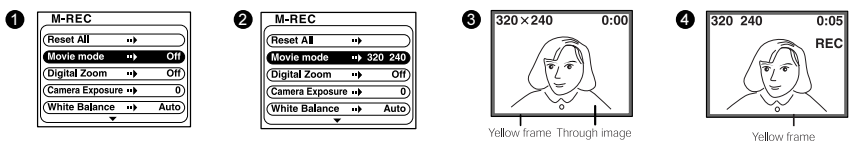
When the movie mode is set, all menus with the exception of "Reset All" and "Screen Contrast" will become unavailable.

1. Enter the M-REC menu mode and press the ▲ / ▼ button to select "Movie mode".
2. Press the ◀ / ▶ button to select Off (default setting), 320 x 240 or 160 x 120.
3. Press the **OK** button to exit the M-REC menu mode. *Through images will be displayed on the LCD monitor with a yellow frame. And the resolution will be displayed in the upper left of the screen, and the recording time will be displayed in the upper right of the screen.*

- When movie mode is selected, the MOVIE icon will appear on the status LCD.
- When the movie mode is selected and the main switch is set to M , the LCD monitor will automatically turn on and display through image. (The LCD monitor will not turn off even when pressing the DISPLAY button.)

4. Record the movie. *The movie will be recorded while the shutter button is held down.*

- *During recording, "REC" will appear on the right side of the screen in red and the recorded time will be displayed.*
- The optical zoom will not operate during movie recording. (Perform the operation before pressing the shutter button.)



Using the Digital Zoom

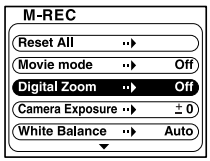
By combining the optical zoom (3x) and digital zoom (1.5x, 2x), images can be recorded with a zoom of 4.5 times to 6 times the original size.

The digital zoom can only be used when optical zoom is set to TELE (3x).

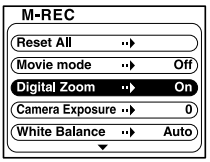
1. Enter the M-REC menu mode and press the ▲ / ▼ button to select “Digital Zoom”.
2. Press the ▶ button to select “On”.
3. Press the **OK** button to exit the M-REC menu mode.
4. Press the ▶ (T) button until the optical zoom stops. Then, release the 5 WAY button and press the ▶ button again.

A blue frame will appear on the LCD monitor and the magnification ratio will be displayed on the top right. Use the LCD monitor as the viewfinder for recording.

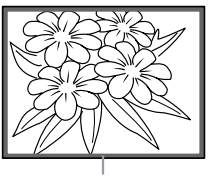
❶



❷



❹



- *Pressing the ◀ / ▶ button each time will switch the magnification between 1.5x and 2x.*
- *Digital zoom cannot be used when the LCD monitor is off.*
- *When using digital zoom, the picture quality may decrease compared to images recorded under normal conditions.*

Exposure Compensation

The exposure can be compensated to intentionally brighten or darken the overall recorded image. The camera exposure can be adjusted within the range of ±1.5EV at 0.3EV intervals.

1. Enter the M-REC menu mode and press the ▲ / ▼ button to select “Camera Exposure”.
2. Press the ◀ / ▶ button to adjust the exposure compensation. Pressing the ◀ button will darken the image and the ▶ button will lighten the image.
3. Press the **OK** button to exit the M-REC menu mode.

- It is recommended to record multiple images with different camera exposure settings and later select the best image.
- The result of compensation may be insufficient when using the flash.

Changing the White Balance

The white balance can be adjusted so that images can be recorded in natural colors no matter what light source the subject is exposed to.

1. Enter the M-REC menu mode and press the ▲ / ▼ button to select “White Balance”.
2. Press the ◀ / ▶ button to select Auto (default setting), ☼ (Daylight), (Incandescent lighting), (Strobe lighting) or (Fluorescent lighting) depends on your lighting condition.
3. Press the **OK** button to exit the M-REC menu mode.

■ *When there are multiple light sources or when the subject is under special lighting, the desired result may not be achieved.*

Changing the AE mode

For normal setting, the AE mode is set to center weighted light reading. The mode can also be changed to spot reading. In spot reading, the exposure can be adjusted based on a selected position of the subject.

1. Enter the M-REC menu mode and press the ▲ / ▼ button to select “AE mode”.
2. Press the ◀ / ▶ button and select “Regular” or “Spot”.
3. Press the **OK** button to exit the M-REC menu mode.

Changing to Slow Shutter Speed

The normal shutter speed is between 1/2000 and 1/8 seconds, but by turning on Slow shutter mode, the range can be extended to between 1/2000 and 2 seconds. Use a tripod for stabilizing the camera.

1. Enter the M-REC menu mode and press the ▲ / ▼ button to select “Slow Shutter”.
2. Press the ◀ / ▶ button and select “On”.
3. Press the **OK** button to exit the M-REC menu mode.

■ *The slow shutter setting can only be used during Night view portrait, flash off, distant and macro modes.*

Adjusting the Screen Contrast

The screen contrast can be adjusted depending on the recording location.

1. Enter the M-REC menu mode and press the ▲ / ▼ button to select “Screen Contrast”.
2. Press the ▶ button to enter the “Screen Contrast” menu and use the ◀ and ▶ buttons to adjust the brightness.
3. Press the **OK** button and exit the REC menu mode.

Recording in black and white

Used for expressing a nostalgic feeling similar to using black-and-white film, or for recording characters on a magazine, blackboard, etc. as memos.

1. Enter the M-REC menu mode and press the ▲ / ▼ button and select “Black & White”.
2. Press the ▶ button and select “On”.
3. Press the **OK** button to exit the M-REC menu mode. Through image on the LCD monitor will be displayed in black-and-white. B/W will be displayed on the status LCD.

Resetting the Camera to Default Settings

Various settings made in the M-REC menu can be reset to default settings.

1. Enter the M-REC menu mode to select “Reset All”.
2. Press the ▶ button to enter the “Reset All” menu and press the ◀ button to select “YES”.
3. When the **OK** button is pressed, all settings will return to the default settings.

Default settings :

Movie mode	Off
Digital Zoom	Off
Camera Exposure	± 0
White Balance	Auto
AE mode	Regular
Slow Shutter	Off
Black & White	Off

Chapter 4 Basic Playback

Playing Back Images

Recorded images can be displayed on the LCD monitor.

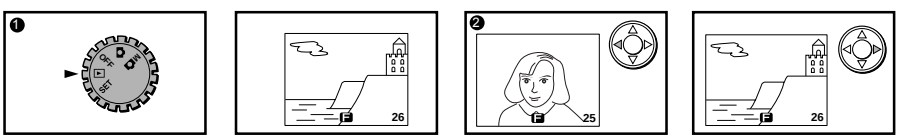
Note: If, after recording, the main switch is set to ▶ , the camera will not enter playback mode until the card access LED is off. (When the card write process is completed, the camera will automatically enter playback mode.)

1. Set the main switch to ▶ . *The latest image recorded will be displayed.*

- Movies will be displayed inside a yellow frame.
- When there is no image data, the message “No picture in camera” will appear.

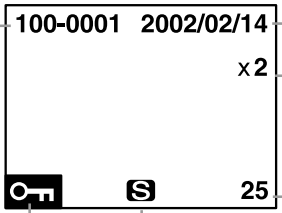
2. Press the ◀ / ▶ buttons to browse the previously / succeeding recorded images.

- The image will first appear jagged. The image will become clear in a few moments. Images can be forwarded even before they become clear.



About the Playback Screen

Other than images, the LCD monitor displays the following:



File no. (displayed only when the image number is set to ON)
The directory number and file number recorded on the card are displayed. These registration numbers are assigned uniquely to each image and used when creating DPOF files (page29).

Date display (displayed for 3 seconds during playback)

Zoom playback magnification (displayed only during zoom playback)

Frame no. (always displayed) The frame no. is attached to each image for playback on the camera. *The maximum number of frames this camera can playback is 999. If there are more than 999 images on a SD memory Card/Multi-Media Card, the camera may not play back the images properly.*

Protected mark (displayed only for protected images)

Picture quality mode (always displayed)

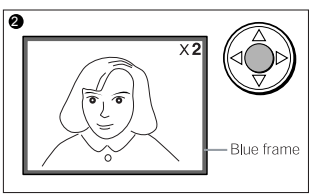
- Superfine
- Fine
- Economy
- Movie

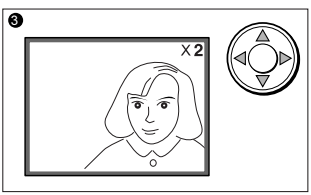
Displaying images at 2x magnification

1. Select the image to display.
2. Press the **OK** button. The center of the image will be displayed at magnification of 2X.

■ *Magnified images are displayed inside a blue frame.*

3. Press the ▲ / ▼ / ◀ / ▶ button to scroll the image and display the desired portion.
4. Press the **OK** button returns the screen to the original 1x display.





Playing Back Movies

1. Select the movie to play back.

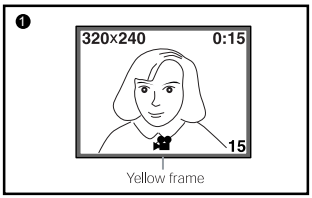
■ *Movies are displayed in a yellow frame.*

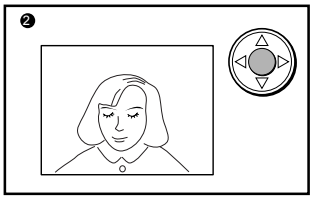
2. Press the **OK** button. *The playback of the movie will start.*

■ All information displays will be cleared at the time of playback.

■ Playback cannot be started when the LEDs is on (red/green) or the card access LED is on.

3. Press the **OK** button to stop playback and return to the initial screen. Press the ▼ button to pause. Press the ▼ button once more to resume playback. When playback is finished, the screen returns to the initial screen.





Playing back Movies on a PC

First, transfer the movie files to a PC (page 34). To playback a movie on a PC, video player software is required. Macintosh users can download the latest version of QuickTime from the Apple Computer web site : *http://www.apple.com*
Windows users can download the latest version of Windows Media Player from the Microsoft Corporation web site : *http://www.microsoft.com*

Chapter 5 Advanced Playback/Erasing

Using the PLAY Menu

Set the camera to ▶ , so that various playbacks can be made. Play menu contains Erase, Index, Slide Show, Protect, Image number, Screen Contrast, DPOF sub-menus. To access the Playback menu and change the settings, perform the following steps :

1. Set the main switch to ▶ . *The last image recorded will be displayed.*
2. Press the MENU button to enter the PLAY menu mode. *The PLAY menu screen will appear.*
3. Press the ▲ / ▼ button to select the desired sub-menu.
4. Press the ◀ / ▶ button to change the sub-menu setting.
5. Press the **OK** button to exit the PLAY menu mode.

■ *The menu settings that have been made will be saved even when the power is turned off.*

Erasing Images

Displayed images can be erased one image at a time or all recorded images can be erased at one time.

Erasing one frame

1. Display the image to erase on the LCD monitor.
2. Press the MENU button and enter the PLAY menu mode. “Erase” will be selected.
3. Press the ▶ button to enter the “Erase” mode and press the ▲ button to select “This”.
4. Press the **OK** button. *The displayed image will be erased .*

■ *Image number following the frame erased will be reassigned.*

Erasing all frames

1. Press the MENU button and enter the PLAY menu mode. “Erase” will be selected.

2. Press the ▶ button to enter the “Erase” menu and press the ▼ button to select “ALL”.
3. Press the **OK** button.
4. Press the ◀ button to select “YES”.
5. Press the **OK** button. After “Erasing ALL Pictures...” is displayed, all images are erased and “No Picture in Camera” is displayed.

- *If there are one or more protected images, the last frame is displayed.*
- *Erasure time may take some time when erasing many frames or when using a Multimedia Card.*

Viewing Multiple Images (Index Playback)

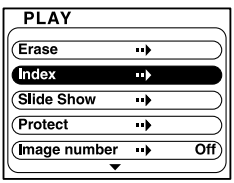
Images of 9 frames are displayed at one time on the LCD monitor. This function is useful for quickly locating the desired image to display.

1. Enter the PLAY menu mode and press the ▲ / ▼ button to select “Index”.
2. Press the ▶ button. Images of 9 frames will appear at one time.

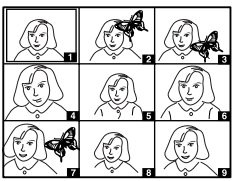
- The select frame is displayed with a red frame.
- Movie images are displayed with , and protected images are displayed with .

3. Press the ▲ / ▼ / ◀ / ▶ and buttons to select the desired image.
4. Press the **OK** button. The selected image will be displayed in the normal display mode.

❶



❷



Viewing a Slideshow of Images

Recorded images can be checked by playing back at specific intervals.

1. Enter the PLAY menu mode and press the ▲ / ▼ button to select “Slide Show”.
2. Press the ▶ button. The slideshow confirmation screen will appear. “YES” will be selected.
3. Press the **OK** button. Slideshow will start with the first frame and each frame will be displayed in order at an interval of 3 seconds.
4. During the playback: Press the ▼ button to pause, press the ▼ button again to resume. Press the **OK** button to stop slideshow playback.
5. When playback is finished, the display will stop at the final frame.

- *The frame playback interval of 3 seconds cannot be changed.*

Keeping Important Images (Protect Setting)

Recorded images can be protected to prevent them from being accidentally erased.

Applying the protect setting

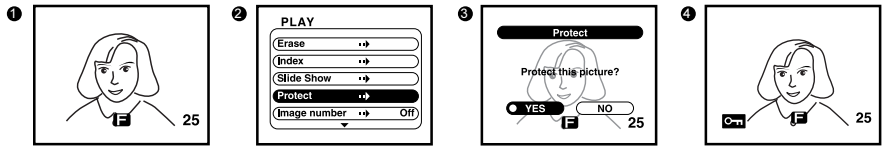
1. Display the image to protect on the LCD monitor.
2. Enter the PLAY menu mode and press the ▲ / ▼ button to select “Protect”.

3. Press the ▶ button. The Protect confirmation screen will appear. “YES” is selected.

■ *If “NO” is selected using the ▶ button and the SET button is pressed, the camera will return to the normal playback screen.*

4. Press the OK button. The image will be protected and the protected mark will appear.

■ *Protected images will not be deleted even when erasing all frames.*



Removing the protect setting

1. Display the protected image on the LCD monitor.
2. Enter the PLAY menu mode and press the ▲ / ▼ button to select “Protect”.
3. Press the ▶ button. The protect confirmation screen will appear. “YES” will be selected.
4. Press the ▶ button to select “NO”.
5. Press the **OK** button. The protect setting will be removed from the image and the protected mark will disappear.

Displaying the file number

The file no. can be displayed on the image being played back. (See page 26.)

1. Enter the PLAY menu mode and press the ▲ / ▼ button to select “Image number”.
2. Press the ▶ button and select “On”.
3. Press the **OK** button. The camera returns to the normal playback display and the file no. will be displayed on the image.

■ *When selecting “Off” and pressing the **OK** button or MENU button, the file no. will be cleared from the image.*

Adjusting the Screen Contrast

The screen contrast can be set to darker or brighter as your preferences. Please refer to (page24) for more details on how to make adjustments.

Selecting the Image to Print (DPOF)

Images cannot be printed by the camera itself.

This menu is for giving instructing about the images and the quantity of print required for automatic output of images within a card to a DPOF (*1) compatible digital printer. There are 2 types of specifications: single frame specification and all frame specification.

A DPOF file is automatically created on the card and the order data is recorded within this file.

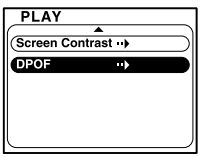
(*1) DPOF: abbreviation for Digital Print Order Format

■ *When printing images using the DPOF function on your own printer, first check with the printer manufacturer to make sure that your printer is DPOF compatible.*

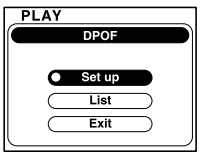
Selecting images (single frame/all frames)

1. Enter the PLAY menu mode and press the ▲ / ▼ button to select “DPOF”.
2. Press the ▶ button to enter the “DPOF” menu. “Set up” will be selected.
3. Press the **OK** button.
4. Press the ▲ / ▼ button to select “Select” or “ALL”.
   “Select” - Images within the card are selected one at a time and the quantity to print is specified.
   “ALL” - The quantity of all frames within the card is specified. The quantity cannot be specified for individual frames.

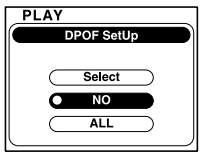
❶



❷



❹



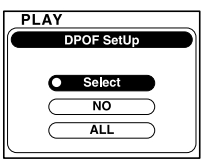
For “Select”

5. Select “Select” and press the **OK** button.
6. Select the image using the ◀ / ▶ button and specify the quantity to print using the ▲ / ▼ button.

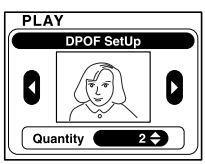
■ *The range that can be specified for “Quantity” is 1 – 99 for each image file.*

7. Press the **OK** button. The camera will return to the screen of ❷.
8. Press the ▼ button to select “Exit” and press the **OK** button.

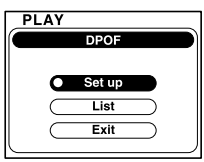
❺



❻



❼



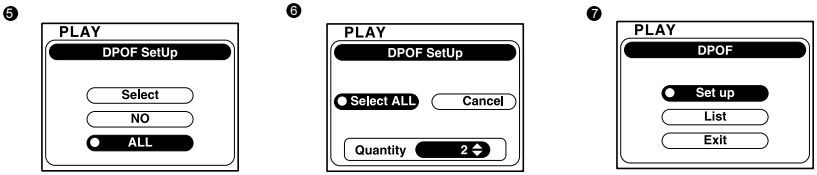
For “ALL”

5. Select “ALL” and press the **OK** button.
6. Press the ▲ / ▼ button to specify the quantity to print. (“Select ALL” is selected.)

■ *The range that can be specified for “Quantity” is 1 – 99 for each image file.*

■ *If there are more than 100 images on the card, the message “You may select up to 100 pictures” will appear and the camera will display the “Select” screen.*

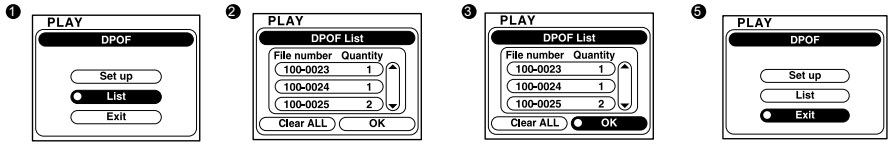
7. Press the **OK** button. The camera will return to the screen of ❷.
8. Press the ▼ button to select “Exit” and press the **OK** button.



Checking/determining images

The “File number” and “Quantity” are displayed in a list and the setting contents are checked.

1. Press the ▼ button to select “List”.
2. Press the **OK** button. The specified file number and quantity will be displayed in a list.
3. After checking the contents using the ▲ / ▼ button, press the ▶ button and select “OK”.
4. Press the **OK** button. The camera will return to the DPOF menu.
5. Press the **OK** button to exit the PLAY menu mode.



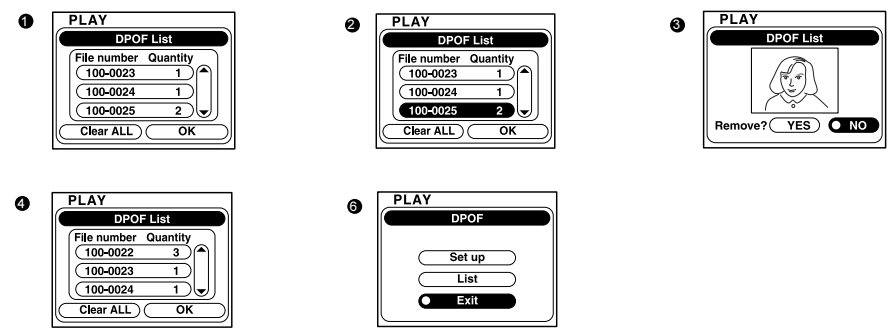
Deleting images from the list (single frame/all frames)

Images not required to be printed can be deleted from the list (single frame/all frames).

1. Display the list screen.

For single frame

2. Press the ▲ / ▼ button to select the image to delete.
3. Press the **OK** button. The image to delete and the delete confirmation screen will appear.
4. Press the ◀ button to select “YES” and press the **OK** button. The list screen with the deleted image removed will be displayed.
5. Press the ▶ button to select “OK” and press the **OK** button. The camera will return to the DPOF menu.
6. Press the **OK** button to exit the PLAY menu mode.



For all frames

1. Press the ◀ button to select “Clear ALL” and press the **OK** button. The camera will return to the DPOF menu.
2. Press the **OK** button to exit the PLAY menu mode.

Chapter 6 Advanced Operation

Using the SET-UP Menu

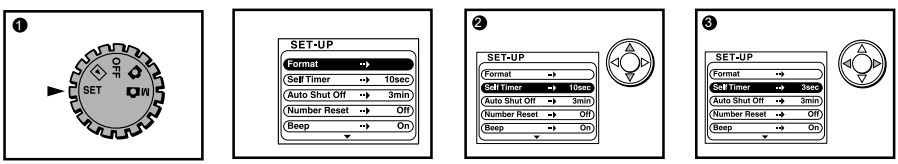
By changing various items of the SET-UP menu, the camera can be set to your needs. The main switch of the camera can be set to **SET** , so that various settings can be made according to your needs. SET-UP menu contains Format, Self-Timer, Auto Shut Off, Number Reset, Beep, Quick Review, Date & Time, Language sub-menus. To access the SET-UP menu and change the settings, perform the following steps :

1. Set the main switch to **SET** . The LCD monitor will turn on and the SET-UP menu screen will appear.
2. Press the ▲/ ▼ button to select the desired sub-menu.
3. Press the ◀ / ▶ button to change the sub-menu setting.

■ T*o make a series of settings, repeat steps 2 to 3.*

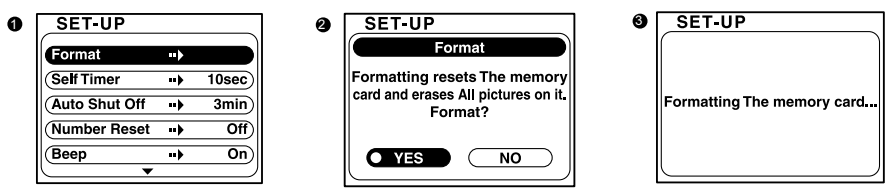
4. Set the main switch to a mode other than **SET** to exit the SET-UP menu mode.

■ *The setting made are saved even when the power is turned off.*



Formatting the SD Memory Card/Multi-Media Card

1. Enter the SET-UP menu mode. “Format” is selected.
2. Press the ▶ button to enter the “Format” menu.
3. Press the ◀ button to select “YES” and press the SET button. “Formatting...” message will appear. When formatting is completed, the screen of ❶ will be displayed.

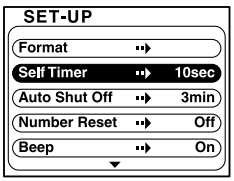


Setting the Self Timer

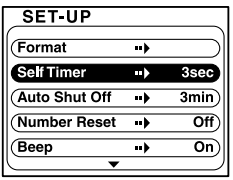
The self-timer interval can be changed from 10 seconds (default setting) to 3 seconds.

1. Enter the SET-UP menu mode and press the ▲ / ▼ button to select “Self Timer”. “10 sec” is selected.
2. Press the ▶ button to select “3 sec” The setting will take effect at the time the menu selection is made.
3. Move to the next menu or set the main switch to a mode other than **SET** to exit the SET-UP menu mode.

❶



❷



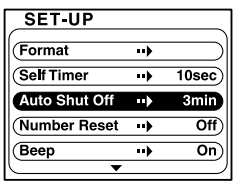
Setting the auto shut-off time

The auto shut-off time can be changed from 3 minutes (default setting) to 10 minutes, or the function can be turned off.

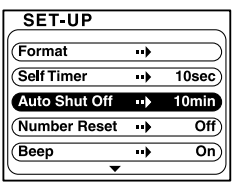
1. Enter the SET-UP menu mode and press the ▲/ ▼button to select “Auto Shut Off”. “3min” is selected.
2. Press the ▶ button to select “10 min” or “Off”. The setting will take effect at the time the menu selection is made.
3. Move to the next menu or set the main switch to a mode other than **SET** to exit the SET-UP menu mode.

■ Even if the selection is set to “Off”, the camera will automatically shut-off after several hours.

❶



❷



Resetting the file number

The file number can be reset.

1. Enter the SET-UP menu mode and press the ▲ / ▼ button to select “Number Reset”.
2. Press the ▶ button to select “On”. The setting will take effect at the time the menu selection is made.
3. Move to the next menu or set the main switch to a mode other than **SET** to exit the SET-UP menu mode.

   If number reset is set to “On”, and there are no images within the card that were recorded with this unit, images will be numbered from xxxxxx1.jpg. If there are images recorded with this unit, the number following the last file no. will be used.

Turning off the beep sound

The beep sound heard during warnings, etc. can be turned off.

1. Enter the SET-UP menu mode and press the ▲ / ▼ button to select “Beep”. “On” is selected.
2. Press the ▶ button to select “Off”. The setting will take effect at the time the menu selection is made.
3. Move to the next menu or set the main switch to a mode other than **SET** to exit the SET-UP menu mode.

Setting the quick review

1. Enter the SET-UP menu mode and press the ▲ / ▼ button to select “Quick Review”. “Off” is selected.
2. Press the ▶ button to select “On”. The setting will take effect at the time the menu selection is made.
3. Set the main switch to a mode other than **SET** to exit the SET-UP menu mode.

■ *When setting the quick review on, no matter whether the LCD monitor is on or off, a preview of the captured image will be temporarily shown on the LCD Monitor as soon as the image acquired. When the 3 seconds are over, the LCD Monitor will return to viewfinder mode or automatically turned it off.*

*During this 3 seconds of preview in either case, the user will have the option, by means of an on-screen prompt, of saving the image just captured by selecting the YES and pressing the **OK** button or deleting the images by selecting No and pressing the **OK** button. If there is no key operation within the 3 seconds, the image is automatically saved.*

Setting the date

1. Enter the SET-UP mode and press the ▲ / ▼ button to select “Date & Time”.
2. Press the ▶ button to enter the “Date & Time” menu.
3. For the setting, see “Adjusting the Menu Display Language and Time/Date” (page 14).
4. Set the main switch to a mode other than **SET** to exit the SET-UP menu mode.

Setting the language

1. Enter the SET-UP mode and press the ▲ / ▼ button to select “Language”.
2. Press the ▶ button to enter the “Language” menu.
3. For the setting, see “Adjusting the Menu Display Language and Time/Date” (page 14).
4. Set the main switch to a mode other than **SET** to exit the SET-UP menu mode.

Chapter 7 Transferring your Images to the Computer

Before image transfer, please read the following guideline carefully.

Driver Installation

If you are planing to transfer your images into a computer, make sure to complete the camera driver installation before the camera connection. The steps are as below:

1. Insert the software CD-ROM disc into your CD-ROM drive
2. The setup program starts. Follow the on screen instructions to complete the camera driver installation.
3. Restart the computer

Downloading Images

1. Turn on the power of your PC.
2. Connect the camera and PC using the USB cable supplied.
3. Set the main switch on the top of the camera to , , or **SET** . "PC" will appear on the status LCD.
4. Double click "My Computer".
5. Double click the newly created "removable device (G)" .

This assumes that the new device is drive G. The drive letter may differ depending on the PC you are using.

An "undefined Name" icon will appear on the desktop if connected with Macintosh computer.

6. Double click the "DCIM" folder.
7. Double click the inside folder to display the icon of the image file.
8. Double click the file to display the image.
9. To save, copy (drag and drop) the file to the desired location on the PC.

While the camera is connected to a PC, the camera cannot be used for recording or playing back images.

The camera cannot be connected to your PC if the card is not inserted.

Warning :

- *Do not disconnect the USB cable/AC adapter, or open the battery/card cover while the card access LED is on. Furthermore, do not format the SD Memory Card or Multi-Media Card using a PC. Data may become damaged.*
- *Image files can be copied to a hard disk or other media and deleted as necessary. For details, refer to the instruction manual operating system in use.*
- *Images that have been altered or newly saved on an SD Memory Card/Multi-Media Card using a device other than this camera will not only play back on the camera but may cause the camera to malfunction when inserted.*
- *Do not change the file name of image data saved on an SD Memory Card/Multi-Media Card using a PC or save files other than image data taken by this camera.*

Specifications

Image sensor	1/2.7"CCD, 2.11 mega pixels (1688x1248)
Recording medium	SD Memory Card/Multi-Media Card
Image resolution	Still image - Super fine 1600 x 1200 ; Fine 1280 x 960 ; Economy 640 x 480 Movie - 320 x 240 ; 160 x 120 pixels
Number of recordable images	Super fine : approx. 17 images Fine : approx. 26 images Economy : approx. 68 images Movie (1 movie = Max. of 15 sec.) 320X240 pixels: approx. 2 movies 160X120 pixels : approx. 8 movies (* When using an 8MB SD Memory Card)
File Format	JPEG (EXIF 2.1), DCF, DPOF, AVI
Lens	Auto focus zoom lens f=5.4 ~ 16.2mm (Equivalent to f=35 ~ 105mm by 35mm film camera conversion) F 2.8(W) ~ 4.6(T)
Focusing range	0.25m ~∞ (during macro recording mode: 0.25m ~ 0.8m ; normal recording: 0.8m ~ ∞)
Exposure control	Programmed AE
Photometry	Center weighted light reading (normal setting), spot reading
White balance	Auto, daylight, incandescent, flash, fluorescent
Shutter speed	1/8 ~ 1/2000 sec (during slow shutter ON: 2 ~ 1/2000 sec)
Flash	Internal auto lighting flash Flash effective range : WIDE: 0.8 ~ 3.0m TELE: 0.8 ~ 2.0m Red-eye reduction/AUTO/ON/OFF available
Recording modes	Recording modes: Single shooting/Self-timer /Macro/ Long distance/Night view portrait/Back-and-white/Digital zoom (1.5x, 2.0x) / Movie (320x240, 160x120)
LCD monitor	1.5 inch TFT color LCD monitor
Playback	Single frame, close-up playback (2x), movie playback, index playback, slideshow
Deletion	Single frame/all frames/format
LED display	Self-timer LED, LED 1,LED 2, card access LED
Buzzer	Various warnings during recording
Auto-date function	Date and time recorded
Power supply	CR-V3 lithium battery (1 unit), AA nickel-hydrogen batteries (2 units), AA alkaline batteries (2 units), or AC adapter(DC 3V)
I/O terminals	USB terminal, AC adapter jack
Operating temperature	5°C ~ 45°C (Humidity: 20% ~ 80%RH)
Size (W ¡Ñ H ¡Ñ D)	100.8 ¡Ñ 64 ¡Ñ 42.8mm
Weight	Approx. 175g (excl. batteries, SD Memory Card)

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